REMARKS

Claims 1-11 are pending in the present application. Claims 12, 13, and 17-19 have been withdrawn from consideration. Claims 14-16 were previously canceled. Claim 1 is an independent claim.

Rejections under 35 U.S.C. § 112

Claims 1-11 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Applicants respectfully traverse.

With regard to the extra superscript "M" notation, Applicants assert that the rejection is moot. Applicants removed the "M" notation in the supplemental amendment filed February 11, 2004. Moreover, Applicants submit that the claims that once included the notation have been withdrawn.

With regard to the significance between R chemical reactions and R sets of reaction parameters, Applicants submit that an explanation may be found, *inter alia*, on page 13 of the Specification. In an example embodiment of the invention, it should be understood that the parameter selection unit retrieves more than one set of reaction parameters (R>1). The positive integer R is also used as a prefix that refers to the r'th set (r being in the range of 1 to R) of retrieved data. The R sets of associated data (Σ_R) are retrieved and R sets of reaction parameters ($^X\Sigma_R$) are obtained.

With regard to the significance in denoting chemical substance A_r with subscript R, Applicants submit that an explanation may be found, *inter alia*, on page 14 of the Specification. In an example embodiment of the invention, the chemical substances A_r may be selected so that

the functionalities α_R, thereof, resemble the functionalities ${}^N\alpha$ of the chemical substances ${}^N A$ retrieved as in the R sets of associated data (Σ_R). Reagents proposed with the R sets of reaction parameters may be of the same type as the ones used in pre-run reactions represented in a database.

With regard to the meaning of superscript N and superscript X, the Examiner is invited to review an example of their meaning as shown, *inter alia*, on pages 11 and 5 of the Specification, respectively.

With regard to why reaction parameters are referred to with a superscript at times, and without a superscript at times, Applicants submit this is to show that one is a subset of the other. For example, the R sets of associated data (Σ_R) may be retrieved to obtain R sets of reaction parameters (${}^X\Sigma_R$) as disclosed, *inter alia*, on page 13 of the specification.

Having adequately addressed the Examiner's concerns, Applicants respectfully request that the 35 U.S.C. § 112 rejection be withdrawn.

Claim Rejections – 35 U.S.C. § 102

Claims 1-11 are rejected under 35 U.S.C. § 102(b) as being anticipated by WO 98/15825 to Nova et al. Applicants respectfully traverse.

With regard to claim 1, Applicants assert that Nova et al. fail to disclose:

> the user provides information to the user interface of the parameter selection unit about the functionality/functionalities β in the chemical species ${}^X B$;
>
> the user provides information to the user interface of the parameter selection unit about the desired transformation of β to δ;
>
> the parameter selection unit retrieves R sets of associated data (Σ_R) from the database, . . . in order to obtain the R sets of reaction parameters (${}^X\Sigma_R$), said R sets of reaction parameters (${}^X\Sigma_R$) being accompanied by corresponding information about the chemical substance(s) A_R under which influence the R

> reactions should be conducted and information about any additional constituents involved in the chemical reaction ...

Instead, Nova et al. disclose, on pages 75 and 76, that a user inputs into a computing system information on a number of chemical building blocks that are to be added to a reaction process. A building block may be a monomer, amino acid, nucleotide that is added to each chemical compound that is being synthesized. The information about the building blocks is input as per a specified format. The user may optionally enter "recipe" information such as reaction times, temperatures, molarities, and reagents to use for each building block's reactions as well as procedures common to all building blocks. Using a virtual library database of all the involved building blocks, reactions, process and compound tracking data, the software facilitates the step-by-step synthesis of the chemical library using memories. For each step specified by the user, four tasks are performed: pre-procedure, sorting, reactions, and work up. In these steps, the program instructs the user to add items to reaction vessels according to a recipe entered by the user to obtain a reaction. Nova et al. does not disclose that a user inputs functionalities in a chemical species and a desired transformation to obtain R sets of reaction parameters.

Therefore, Nova et al. cannot disclose, teach, or suggest a user provides information to the user interface of the parameter selection unit about the functionality/functionalities β in the chemical species ${}^{X}B$; the user provides information to the user interface of the parameter selection unit about the desired transformation of β to δ; the parameter selection unit retrieves R sets of associated data (Σ_R) from the database, . . . in order to obtain the R sets of reaction parameters (${}^{X}\Sigma_R$), said R sets of reaction parameters (${}^{X}\Sigma_R$) being accompanied by corresponding information about the chemical substance(s) A_R under which influence the R reactions should be

conducted and information about any additional constituents involved in the chemical reaction as recited in claim 1.

With regard to dependent claims 2-11, Applicants assert that claims 2-11 are allowable at least because they depend from claim 1 which is allowable.

Applicants respectfully request that the art grounds of rejection be withdrawn.

Double Patenting

Claim 4 is objected to under 37 C.F.R. 1.75 as being a substantial duplicate of claim 3. Applicants respectfully traverse.

Applicants submit that because claim 4 includes recites the "use of R chemical substances A_r", whereas, claim 3 recites the "use of more than one chemical substance A_r" the claims are different. In claim 3, there could be a number of chemical substances A_r that are used that are not necessarily the same number as R. Therefore, Applicants submit that claims 3 and 4 are not the same.

Applicants respectfully request that the objection be withdrawn.

CONCLUSION

In view of the above amendments and remarks, reconsideration of the various objections and rejections and allowance of each of claims 1-11 is respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact John A. Castellano at the telephone number of the undersigned below.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 08-0750 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Respectfully submitted,

HARNESS, DICKEY & PIERCE, P.L.C.

By _____

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